

Egg Layer/Breeder Industry Research Priorities

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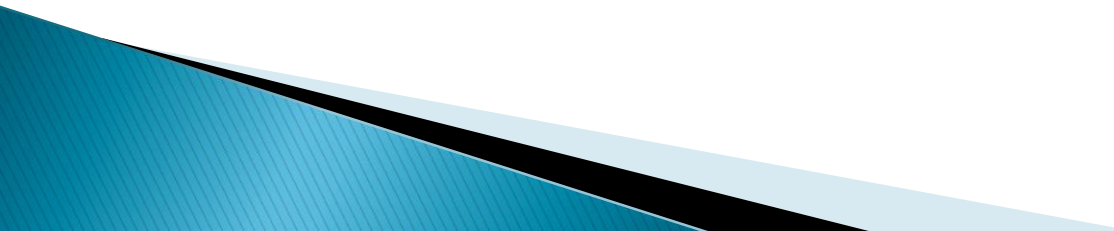
USDA-ARS and NIFA Research Planning Workshop



AAAP Research Priorities Committee Report

- ▶ USAHA annual report, 2009
- ▶ Poultry meeting review of reports given
 - American Association of Avian Pathologists (AAAP) annual meetings
 - 2008 and 2009
 - Western Poultry Disease Conference (WPDC) annual meetings
 - 2007 – 2009
 - Poultry Health and Processing annual meetings
 - 2007 and 2008
 - North Central Avian Disease Conference (NCADC)
 - 2008 and 2009
 - Southern Conference on Avian Diseases (SCAD)
 - 2007 and 2009

AAAP Research Priorities – Diseases

- ▶ Respiratory
 - Avian influenza
 - Newcastle
 - Infectious bronchitis
 - Infectious laryngotracheitis
 - Mycoplasmosis
 - ▶ Gastrointestinal
 - Coccidiosis
 - Clostridiosis
 - Enteric viral infections
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AAAP Research Priorities – Diseases


- ▶ Musculoskeletal and Integumentary
 - Lameness
 - Gangrenous dermatitis/cellulitis
- ▶ Tumor Diseases
 - Marek's Disease
 - Avian Leukosis Virus
- ▶ Systemic Diseases
 - *E. coli* peritonitis of layers
- ▶ Food Safety
 - Salmonella
 - Campylobacter

AAAP Research Priorities – Diseases

▶ Welfare

- Lighting programs
- Bird densities
- Ammonia control
- Catching and transport
- Unloading
- Stunning

▶ Others

- Availability of approved and efficacious treatments
 - Environmental impact of drugs or antimicrobials used
 - Antimicrobial resistance
 - Disease complexes
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Association of Veterinarians in Egg Production (AVEP)

- ▶ 77 members – Industry, academia, or diagnosticians involved with egg layers
- ▶ Rankings of listed diseases ranked 1 to 4
 - 1 = no problems
 - 2 = scattered problems
 - 3 = common problem
 - 4 = serious, widespread problem
- ▶ Top five diseases
 - Caged pullet growing
 - Caged layers
 - Cage-free pullet growing
 - Cage-free layers

2009 AVEP Survey Results – Caged Pullets

- ▶ 14 respondents
- 1. Starveouts (chicks) – 2.43
- 2. Yolk infections (chicks) – 2.29
- 3. Peripheral neuropathy – 2.07
- 4. Coccidiosis – 1.93
- 5. ILT – 1.86

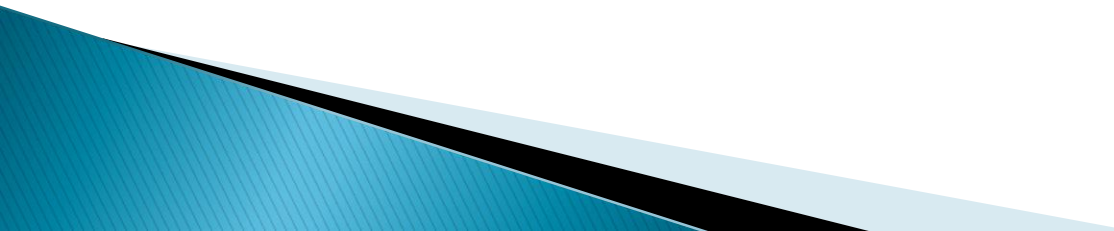


Peripheral Neuropathy

- ▶ Resembles Marek's Disease nerve lesions in pullets
- ▶ No involvement of MD virus
- ▶ Thought to be an autoimmune disease



2009 AVEP Survey Results – Caged Layers

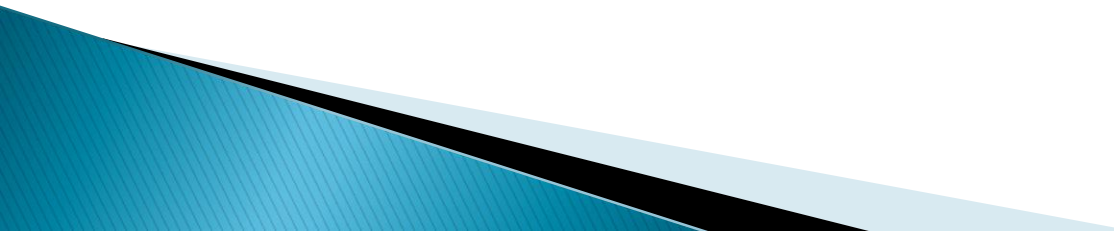
- ▶ 14 respondents
 - 1. *E. coli* peritonitis – 2.64
 - 2. Cannibalism – 2.57
 - 3. *Mycoplasma gallisepticum* – 2.50
 - 4. Calcium depletion – 2.32
 - 5. Coccidiosis and focal duodenal necrosis (FDN) – tied at 2.25
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FDN – Focal Duodenal Necrosis

- ▶ Evidence of *Clostridium colinum* involvement
- ▶ Egg production and egg weight losses



2009 AVEP Survey Results – Cage-free Pullets

- ▶ 6 respondents
 - 1. Coccidiosis – 2.4
 - 2. Yolk infections (chicks) – 2.3
 - 3. Ascarids – 2.2
 - 4. Marek's and starveouts (chicks) – tied at 2.0
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2009 AVEP Survey Results – Cage-free Layers

- ▶ 8 respondents

1. Cannibalism and colibacillosis – tied at 2.6
3. Mites and ascarids – tied at 2.3
5. Coccidiosis and hysteria – tied at 2.1

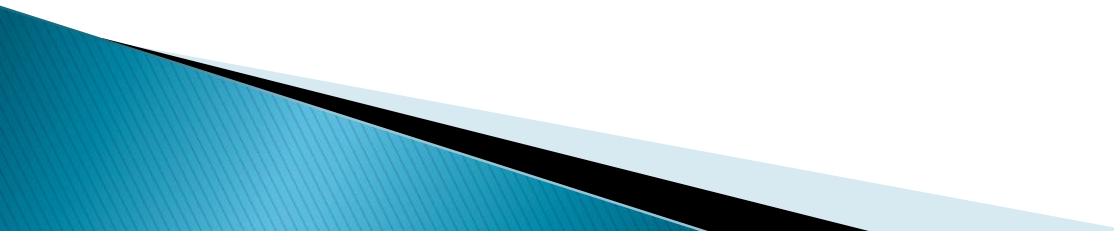


2009 Poll Results – Issues and Concerns in Table Egg Production

▶ 15 respondents

1. Welfare issues = 3.60 (3.45 last year)
 - Loss of cages, ballot initiatives
2. Lack of approved, effective treatments = 3.29 (last year, 2.55)
 - Loss of antibiotics for colibacillosis
 - No parasiticides for ascarids in layers
 - One coccidiosis treatment
3. *Salmonella enteritidis* (SE) = 3.00 (last year, 2.55)
4. Avian Influenza = 2.93 (last year, 2.77)
5. Lack of effective vaccines = 2.40 (last year, 1.22)

Additional Topics to be Considered for Egg Layers

- ▶ Disposal and euthanasia methods of spent hens
 - ▶ Calcium tetany post-molt
 - ▶ Mass depopulation methods for caged layers
 - ▶ ???
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Questions ??

